



# Memorandum

**TO:** TRANSPORTATION AND  
ENVIRONMENT COMMITTEE

**FROM:** Kerrie Romanow  
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**SUBJECT:** AB 32 SCOPING PLAN AND  
CAP-AND-TRADE PROGRAM  
UPDATE

**DATE:** March 26, 2015

Approved

Date

3/26/15

## RECOMMENDATION

Accept the program update on the AB 32 Scoping Plan and Cap-and-Trade Program.

## BACKGROUND

In April 2014, staff provided the Transportation and Environment Committee (T&E Committee) with an overview of the AB 32 Scoping Plan and Cap-and-Trade Program. This report provides an annual update as requested by the T&E Committee.

In 2006, the State enacted AB 32, the Global Warming Solutions Act of 2006, which set the State's 2020 greenhouse gas (GHG) emissions reduction goals into law. This legislation established a comprehensive program of regulatory and market mechanisms to achieve real, quantifiable, cost-effective reductions of greenhouse gases. It made the California Air Resources Board (ARB) responsible for monitoring and reducing GHG emissions and directed ARB to begin developing discrete early actions to reduce GHG emissions while also preparing a scoping plan to identify how best to reach the 2020 limit.

The Climate Change Scoping Plan (Scoping Plan) developed by ARB describes the comprehensive range of efforts California must take to reduce GHG emissions to 1990 levels by 2020 and meet the state's long-term goals to combat climate change. California's strategy to meet the goals of AB 32 is based on the continued implementation of adopted actions including Advanced Clean Cars, the 33% Renewables Portfolio Standard, statewide energy-efficiency initiatives, Cap-and-Trade, the Low Carbon Fuel Standard and other programs. They are designed to achieve significant reductions of GHG emissions in every sector of California's economy through improved energy efficiency, and by providing consumers with cleaner fuel choices.

AB 32 requires the Scoping Plan to be updated every five years. The original Scoping Plan, first released in 2008, was developed on the principle that a balanced mix of strategies is the best way to cut emissions and grow California's economy in a clean and sustainable direction. ARB completed their first update of the Scoping Plan in 2014.

Cap-and-Trade Program and the Use of Auction Proceeds

ARB's Scoping Plan identifies a Cap-and-Trade program for pollution credits as one of the strategies that will be used to reduce GHG emissions, and this remains unchanged in the Proposed First Update. The development of the Cap-and-Trade program included a multi-year stakeholder process and consideration of potential impacts on disproportionately impacted communities. Senate Bill 535, passed in 2012, designated that 25 percent of Cap-and-Trade revenues be allocated to disadvantaged communities that were identified by the California Environmental Protection Agency based on geographic, socioeconomic, public health, and environmental hazard criteria. No areas in San José qualify for the disadvantaged communities funding.

Under Cap-and-Trade, an overall limit on GHG emissions from "capped" sectors has been established, and those entities subject to the cap will be able to trade permits (allowances) to emit GHGs. Under state regulations, one allowance is equal to one ton of the total carbon dioxide equivalent (CO<sub>2</sub>e) emissions. Producers of about 80 percent of the State's GHG emissions, a group that consists of stationary large emitters such as refineries and factories creating over 25,000 metric tons per year, are subject to the cap. The San José-Santa Clara Regional Wastewater Facility (RWF) is regulated as a capped emitter, and has been tracking and reporting its GHG emissions since 2009. In 2013, the RWF exceeded the emissions cap, and began purchasing credits to offset the emissions.

Implementation of the cap for the transportation fuel, natural gas and other fuel sectors began in January 2015. The remaining 20 percent of emissions derive from smaller entities, such as agriculture and forestry and are referred to as the "uncapped" sectors. Capped polluters can purchase credits from the State or from other facilities that pollute less than their allocation as part of statewide auctions. ARB has conducted nine auctions to-date with another auction scheduled in May 2015. The California State Budget for Fiscal Year 2014-2015 provided \$832 million of Cap and Trade proceeds to support existing and pilot programs that would reduce GHG emissions. With the addition of the transportation and fuel sectors in 2015, estimates for auction proceeds could be in the \$3-5 billion range.

Governor Brown's Proposed Budget for Fiscal Year 2015-2016, uses the framework for the expenditure for Cap-and-Trade revenues legislated in SB 862. SB 862 dedicated 60 percent of auction revenues continuously to programs within the Sustainable Communities and Clean Transportation category with the remaining 40 percent appropriated by the Legislature to the Energy Efficiency and Clean Energy and Natural Resources and Waste Diversion categories. If the auction revenues change the recommended amounts may change. At this time the budget proposes investments in the following areas:

<i>Investment Category</i>	<i>Department</i>	<i>Program</i>	<i>Amount (millions)</i>
Sustainable Communities and Clean Transportation	High Speed Rail/Caltrain	Rail Modernization	\$250
	State Transit Assistance	Low Carbon Transit Operations System	\$50
	Transportation Agency	Transit and Intercity Rail Capital Program	\$100
	Strategic Growth Council	Affordable Housing and Sustainable Communities	\$200
	Air Resources Board	Low Carbon Transportation	\$200
Energy Efficiency and Clean Energy	Dept. of Community Services and Development	Energy Efficiency Upgrades/Weatherization	\$75
	Energy Commission	Energy Efficiency for Public Buildings	\$20
	Dept. of Food and Agriculture	Agricultural Energy and Operational Efficiency	\$15
Natural Resources and Waste Diversion	Dept. of Fish and Wildlife	Wetlands and Watershed Restoration	\$25
	Dept. of Forestry and Fire	Fire Prevention and Urban Forestry Projects	\$42
	Cal Recycle	Waste Diversion	\$25
<b>Total</b>			<b>\$1,002</b>

## **ANALYSIS**

The Governor's Proposed 2015-2016 Budget allocates \$250 million of Cap-and-Trade auction proceeds towards High Speed Rail and other rail improvements while another \$550 million is allocated towards low carbon transportation and sustainable communities. The remaining \$202 million in funds are spread across a wide range of GHG reduction efforts, including energy efficiency, natural resources, and waste diversion.

The Scoping Plan identifies a number of strategies to help the State achieve its long term goals. Key highlights in Water, Energy, Waste Diversion, Housing, and Transportation are outlined below:

**Environmental Services – Water:** The storage, conveyance, and treatment of water in California consume large amounts of electricity. Approximately 19 percent of the electricity and 30 percent of non-power plant natural gas consumption is used by the water sector. Therefore, most of the water measures included in the Scoping Plan focused on the GHG emission benefits derived from reduced energy use. To accomplish this, the Scoping Plan outlines the following key areas:

- Prioritizing investments in water conservation.
- Adopting rate structures and pricing that maximize conservation.

- Promoting less-energy intensive water management, such as a comprehensive groundwater policy.

The energy and water nexus is becoming a higher priority in the state, and staff is working through its water and utility association partners, along with the Santa Clara Valley Water District to communicate local funding needs and project opportunities.

**Energy** - Presently, about 50 percent of the State's total GHG emissions are associated with the energy sector; therefore, efforts to reduce energy-related emissions are a key component of the Scoping Plan. Reducing energy-sector emissions to near zero over the long-term will require wholesale changes to the State's current electricity and natural gas systems. The energy sector will need to adapt to significant technology, land-use and energy-demand changes in the coming years. Some of these changes include near-zero carbon buildings, highly efficient businesses and industry, low-carbon electricity generation, sustainable bio-energy systems, smarter localized generation, flexible and modernized transmission and distribution systems, more compact land use, and electricity substitutes for fuels currently used for transportation, space heating, and industrial processes.

Fifty-five percent of existing residential buildings and 40 percent of non-residential buildings were constructed before California's building energy efficiency standards were established. California's legislature recognized the opportunity and importance of upgrading existing residential and commercial buildings and passed Assembly Bill 758 (Skinner, Chapter 470, Statutes of 2009), which requires the CEC to develop and implement a comprehensive energy efficiency plan for all of California's existing buildings. The CEC is currently drafting an AB 758 Action Plan to accomplish the following:

- Improve code compliance rates with Title 24 Building Standards for existing building upgrade projects.
- Develop energy disclosure approaches and programs that build on existing efforts and expand the types of applicable buildings, including State buildings in alignment with Governor Brown's Executive Order B-18-12.
- Collaborate with the real estate and property management industries to craft aggressive, but practical, solutions to achieve efficiency upgrades in existing buildings.
- Enhance usability of Title 24 Building Standards as applied to additions and alterations of existing buildings.

While the funding delineated in the Governor's budget targets state infrastructure energy efficiency projects, staff continues to provide comment to the CEC on statewide standards and their implications for local implementation.

**Waste Diversion** – The Scoping Plan also recognizes the potential for GHG reduction through natural resources management and waste diversion. The Scoping Plan prioritizes infrastructure

development for organic material processing and recycling manufacturing. Additional capital investment is needed at facilities in California to achieve GHG emission reductions by diverting more materials from landfills, increasing local processing of regularly exported waste, and producing beneficial end products, such as renewable energy, compost, or goods made from recycled materials.

Lawrence Berkeley National Lab (part of Federal Department of Energy), in partnership with Zero Waste Energy Development Company (ZWEDC) and the City, has been awarded a four-year \$4.3million grant by the California Energy Commission with a target June 2015 start date. The goals of the study include: understanding air quality impacts of scaling up ZWEDC's waste processing capacity, identifying optimal power and co-product (biogas, heat, fertilizer, compost) utilization and export options by characterizing economic and environmental trade-offs (which includes analysis to determine feasibility of piping BioGas across the street to the Regional Wastewater Facility for energy production), and removing economic and policy barriers to maximize production and utilization of electricity and co-products from ZWEDC's waste-to-energy facility.

The Governor's Draft Budget includes \$25 million in 2015-2016 for CalRecycle to provide financial incentives to build or expand organics infrastructure, such as composting and anaerobic digestion, or reduce food waste in California. Other targeted activities include new or expanded infrastructure for manufacturing products with recycled content fiber, plastic, or glass. Staff is tracking CalRecycle's grant process in anticipation of a release of another round of funding for either City-led or partnership projects in waste diversion.

**Housing** - The Affordable Housing and Sustainable Communities (AHSC) program within the Scoping Plan includes a variety of potential activities to facilitate the development of pedestrian- and transit-oriented, vibrant built environments connected to employment, services, and amenities. A key funding category within the program is affordable housing, especially at transit stations and along transit corridors. As noted in the Scoping Plan, "location-efficient, affordable transit-oriented development (TOD) has been estimated to yield vehicle miles traveled (VMT) reductions of 20-40 percent over households in non-TOD locations."

The State's Budget Act of 2014 allocated \$130 million from Cap and Trade revenues, also known as the Greenhouse Gas Reduction Fund ("Fund"), to implement AHSC. Accompanying legislation SB 862 specifies that 20 percent of the Fund would be continuously appropriated for AHSC beginning in fiscal year 2015-16, with no less than 10 percent of the annual proceeds allocated for affordable housing.

Draft program guidelines were developed late 2014 and were adopted on January 20, 2015 by the State's Strategic Growth Council (SGC). On January 26, 2015, SGC released a Notice of Funding Available for FY 2014-15 that provides funding for two project area types: Transit-Oriented Development (TOD) Project Area and Integrated Connectivity Project (ICP). The maximum award for a TOD project is \$15 million and \$8 million for an ICP. Eligible uses include affordable housing developments, housing-related infrastructure, and transportation-related infrastructure. Grants are awarded on a competitive basis, and additional points are

awarded for projects that are included in the site inventory of a jurisdiction's approved housing element.

The timeline for the FY 2014-15 program is as follows:

- 2014-15 AHSC NOFA released: Week of January 26, 2015
- Concept Proposal Due to HCD: February 19, 2015
- Invitation to Select Applicants to Submit Full Application: March 11, 2015
- Full Application Due to HCD: April 15, 2015 Staff Award Recommendations Released: mid-June 2015
- SGC Considers and Approves Staff Recommendations for Awards: Late June 2015

In February 2015, the Departments of Housing, Transportation, and Parks, Recreation, and Neighborhood Services worked with two affordable housing developers – the Housing Authority of Santa Clara County (“Housing Authority”) and First Community Housing – on their concept proposals for submittal by the February 19 deadline. These applications were for \$15 million each to fund affordable housing and transportation-related infrastructure projects. While the City was not a co-applicant to either projects, staff provided key technical information and identified infrastructure projects that would qualify for funding through AHSC. The Housing Authority has been invited to submit full applications.

Because this is the first year of this innovative program, the State has indicated that refinements may be made in the future based on public input and experience with implementation in order to improve AHSC. Staff will continue to follow AHSC and participate in providing input if and when the opportunity becomes available. Staff will also monitor when the next funding cycle will become available, and work with the development community to provide coordinated facilitation for submitting strong project proposals. Successful applications will help the City implement its housing, transportation, and land use goals contained in General Plan 2040 and the Urban Village strategy, as well as help advance the City's sustainability goals in the Green Vision.

**Transportation** - Accounting for approximately 36 percent of California's GHG emissions, the state's transportation system is the primary source of smog-forming and toxic air pollution in the State and represents one of the greatest needs for emissions reductions. In order to meet AB 32's GHG emissions goals there are four strategies to be employed. They are:

- Improve vehicle efficiency and develop zero emission technologies,
- Reduce the carbon content of fuels and provide market support to get these lower-carbon fuels into the marketplace,
- Plan and build communities to reduce vehicular GHG emissions and provide more transportation options, and
- Improve the efficiency and throughput of existing transportation systems.

Scoping Plan actions that support the strategies to meet the AB 32 transportation goals include:

- Adopt the necessary regulations and/or policies to further support commercial markets for low-carbon transportation fuels
- Expand upon 2013 Zero Emission Vehicle (ZEV) Action plan for medium- and heavy-duty ZEVs
- Evaluate updating the SB 375 regional targets for passenger vehicle GHG reductions established in 2010 by ARB
- Ensure that GHG reductions from approved Sustainable Communities Strategies are achieved or exceeded through coordinated planning
- The High-Speed Rail Authority will continue construction of the HSR system, beginning with completion of all station-area planning by 2017 followed by completion of the initial operating segment in 2022. By 2029, HSR will run from San Francisco to Los Angeles
- The High-Speed Rail Authority will work with other rail and mass transit providers to increase transit ridership both regionally and inter-regionally
- Complete the first phase of the Sustainable Freight Strategy
- Support growing markets for clean passenger transportation, advanced technology trucks and equipment, and low-carbon transportation fuels and energy, including any necessary infrastructure
- Consider lifecycle benefits and impacts for transportation infrastructure projects
- Increase Caltrans and regional transportation agencies' investments in expanded transit and rail services, active transportation, and other VMT reduction strategies in regional transportation plans

Many of the activities related to transportation included in the Scoping Plan identify statewide strategies to reduce GHG emissions generated through transportation. San José, through its *Envision 2040* General Plan, has committed to increase the percentage of residents that use alternative modes of transportation, such as biking, as their primary method of transportation. In order to do this, the City works closely with the Santa Clara Valley Transportation Authority (VTA) and the Metropolitan Transportation Commission (MTC) to support legislation, policies and funding that supports active transportation projects and activities as well as regional infrastructure projects like the Silicon Valley BART extension that will reduce the amount GHG emissions generated in San José and the South Bay. In addition to providing greater access to residents that utilize biking, walking, and transit, the City has also actively sought funding to install a network of electric vehicle (EV) chargers providing the infrastructure to support low-emission vehicles within the City.

### **Legislation**

The majority of energy related legislation introduced last year was not successful in getting passed. This session, Senator Jim Beall has introduced SB 9 the Greenhouse Gas Reduction Fund: Transit and Intercity Rail Capital Program. SB 9 (Beall) would modify the Transit and Intercity Rail Capital Program, which is funded through the State's Cap and Trade Program. The Transit and Intercity Rail Capital Program receives 10% of the annual proceeds of the Greenhouse Gas Reduction Fund, which is funded through Cap and Trade, as a continuous appropriation. Under current law, the Program funds capital improvements and operational investments to modernize California's rail systems to achieve reductions in greenhouse gas

(GHG) emissions reductions and other policy goals including the expansion and integration of rail services.

SB 9 would modify the Transit and Intercity Rail Capital Program to provide for the funding of large, transformative transit and rail capital improvements with a total cost exceeding \$100 million. The California State Transportation Agency (CalSTA) would prioritize and select projects for funding. The bill would require CalSTA to develop an initial five-year revenue estimate for the program with subsequent estimates to be made every other year for additional five-year periods. The agency would be required to create a five-year program of projects consistent with the fund estimate. Projects selected for funding would receive a multi-year funding commitment.

#### Next Steps

The potential long term opportunities for many City policies associated with Cap-and-Trade funding require ongoing collaboration and coordination across departments. To that end, staff from ESD, DOT, Housing, PBCE, OED, and Intergovernmental Relations coordinate to align City responses to, positions on legislation, and strategize on opportunities for future project funding. Meeting the goals of the Scoping Plan require an interconnectedness in planning and developing infrastructure, so continued coordination and systems approach to evaluation is critical.

### **EVALUATION AND FOLLOW-UP**

With limited funding opportunities this year, staff will continue to monitor legislative and regulatory developments and return next year with an update. Staff will continue to look for opportunities as funding may become available.

In addition, the Governor's Office is also committed to reducing GHG emissions by 80 percent below 1990 levels by 2050 to avoid "dangerous" climate change—meaning some of the worst and most disruptive climate impacts. The Administration has begun working with the Legislature and stakeholders to develop a midterm reduction target for 2030 that is consistent with this 2050 objective for stabilizing climate change, and to develop an integrated, economic plan for meeting this target. Such a plan will likely address reductions in a number of key areas:

- Decarbonizing Electricity—significantly increase the state's share of renewable energy, while maintaining system reliability and operability.
- Energy Efficiency for Existing Buildings—significantly improve the energy efficiency of the existing building stock, a majority of which was built before California adopted building efficiency standards.
- Cleaner Transportation Fuels and Reduced Vehicle Miles Traveled—significantly reduce the use of petroleum-based transportation fuels and the number of vehicle miles traveled statewide, currently at around 330 billion miles per year. Healthy active transportation



alternatives, including transit, walkable, bikeable communities, and high-speed rail, will receive at least 50 percent of future Cap and Trade revenues.

- Water and Space Heating—Significantly increase the use of cleaner fuels—low carbon electricity or low carbon gas—for water and space heating in our buildings.
- Natural and Working Lands—Enhancing California’s natural landscape—forests, rangelands, wetlands, grasslands, riparian areas and agricultural lands—to be net carbon sinks, rather than sources, of GHG emissions, by improving the health and resilience of soils and other strategies (see the California Department of Food and Agriculture section of the Statewide Issues and Various Departments Chapter).
- Short-Lived Climate Pollutants—Significantly reduce emissions of pollutants, such as methane and black carbon, from oil production, landfills, agriculture and other sources. These pollutants have a much greater short-term impact on the climate than carbon dioxide, and also have adverse air quality and public health impacts.
- Price on Carbon—Continue policies that put a price on carbon, reflecting the costs that GHG emissions impose on society and creating incentives for the development of cleaner technology.
- Resilience—Implement climate adaptation strategies. The effects of climate change have already begun in the state, and even under the best-case scenarios for reductions in global carbon emissions, additional climate impacts are inevitable, including more frequent and extreme events. State agencies will need to work with local governments to make both the built and natural environments more secure and resilient, including through implementation of the state’s climate adaptation strategy, Safeguarding California, and other planning and investment decisions.

Staff will be following and participating in these discussions on 2030 goals, and bring forward implications for the City.

## **PUBLIC OUTREACH**

This item will be posted on the City’s website for the April 6, 2015 Transportation and Environment Committee agenda.

## **COORDINATION**

This memorandum has been coordinated with the Office of Economic Development, the Office of the City Attorney, Intergovernmental Relations, Planning, Building and Code Enforcement, and Parks, Recreation, and Neighborhood Services.

TRANSPORTATION AND ENVIRONMENT COMMITTEE

March 26, 2015

**Subject: AB 32 Scoping Plan and Cap-and-Trade Program Update**

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**CEQA**

Not a Project, File No. PP10-069(a), Staff Reports/Assessments/Annual Reports.

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